Lifelike Man Preserved 2,000 Years in Peat

A Danish Bog Yields Remains of a Human Sacrifice That Helps Reconstruct the Life of Europe's Ancient Tribes

By P. V. Glob

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ALL the world over, traces can be seen of prehistoric times, of the dwellings and the graves of ancient man. But in almost every case it is only through skeletons or scattered bones, sculptures, or other handiwork that we can form our picture of early man. To see our distant ancestors as real human beings, we are forced to rely on our imagination.

But not in Denmark! In this little land exceptional conditions of preservation allow us to see Bronze Age and Iron Age Man, not, of course, living, but in some cases so wonderfully preserved as to appear to be separated from our own era not by the millenniums which in fact have elapsed, but only by a few hours' sleep.

Two large groups of discoveries provide these unique relics: Bronze Age burials from about 3,000 years ago, and peat-bog finds from the Iron Age at about the commencement of our Christian Era.

Some of the bodies found in these peat bogs of Jutland have been preserved to such an astounding degree that they show not the slightest desiccation and lie with rounded limbs as if asleep. In most cases, they are apparently offerings to the Iron Age gods.

Peat Cutters Call the Police

One of the best-preserved and most thoroughly investigated of these bodies from the peat bogs is the one found in May, 1950, in the course of peat cutting in Tollund Mose (Bog) in central Jutland.

I was in the middle of a lecture that day at Aarhus University when I received a telephone call from the police: a body had been found! They had been summoned by the peat cutters, who suspected a connection with a recent unsolved crime.

Since the police had more than once been called out previously to investigate bodies which had lain for centuries under the peat, I saw at once the possibility of a more than usually interesting archeological discovery. I started at once for Tollund Mose, a narrow peat bog among high, steep hills in a wild region of central Jutland (pages 420 and 427).

In the peat cut, nearly seven feet down, lay a human figure in a crouched position, still half buried. A foot and a shoulder protruded, perfectly preserved but dark brown in color like the surrounding peat, which had dyed the skin. Carefully we removed more peat, and a bowed head came into view.

As dusk fell, we saw in the fading light a man take shape before us. He was curled up, with legs drawn under him and arms bent, resting on his side as if asleep. His eyes were peacefully shut; his brows were furrowed and his mouth showed a slightly irritated quirk as if he were not overpleased by this unexpected disturbance of his rest (pages 421, 426).

That this rest had lasted 2,000 years was clearly shown by the seven feet of peat which had gradually formed above him throughout the centuries.

Murder Mystery—2,000 Years Old

But it was not by his own choice that this ancient man had come to rest here. This was revealed by a rope of two smooth plaited leather thongs which formed a noose around his neck, pulled chokingly tight, with the free end lying like a snake down his back.

Moreover, he was without clothing, save for a cap and a belt. The pointed leather cap on his head was formed of eight pieces of skin, with the fur inside, and had a chin strap; his leather belt was tied in a loop in front.

Clearly this man had been hanged and thereafter deposited in the peat bog. But why? It was unlikely that a mere criminal would have been treated in this way. Besides, the fine features of the Tollund man would, in the view of many, argue against such a theory.

Many questions like this presented themselves as we stood over the dead figure.

But the answers would have to wait. Now it was necessary to act swiftly to prevent the air from destroying this rare relic and to bring it as soon as possible under the care of a skilled conservator.

Careful hands covered the body again with peat, cut free the section on which it lay, and placed it in a wooden case. Thus the body was transported to the National Museum in Copenhagen (København).

Putting Clue and Clue Together

Then began the scientific investigation of this 2,000-year-old murder mystery. Ancient historical documents were searched, and accounts of similar discoveries were hunted up in the files of the museum.

In the last 200 years about 100 such bodies have been discovered in peat bogs within the Northern European cultural area, which in the Iron Age covered Denmark, northwest Germany, and the Netherlands. Most belong to the Early Iron Age, around the beginning of the Christian Era, though some are later, a few dating from the Middle Ages.

Some of the victims undoubtedly were criminals who had been executed by being tossed into lakes or swamps, a custom mentioned by writers of this period. The Roman historian, Tacitus, for example, writing of the German tribes shortly before A. D. 100, tells how their laws allotted different modes of execution to different types of crime:

"Traitors and deserters are hanged on trees; cowards, shirkers, and the unnaturally vicious are drowned in miry swamps under a cover of wattled hurdles. The distinction in the punishment implies that deeds of violence should be paid for in the full glare of publicity, but that deeds of shame should be suppressed."

The bodies found in the peat bogs do not entirely agree with this account, doubtless because the Germanic tribes probably had varying laws and customs. The important point, however, is that the custom of sinking criminals in bogs was definitely known.

Other victims were suicides and witches. To prevent their return to haunt the survivors, each was pinned to the ground with a stake or forked sticks.

Three Lions (above and opposite)

↑ Danish Farmers Uncover Ancestors Preserved 2,000 Years in Peat

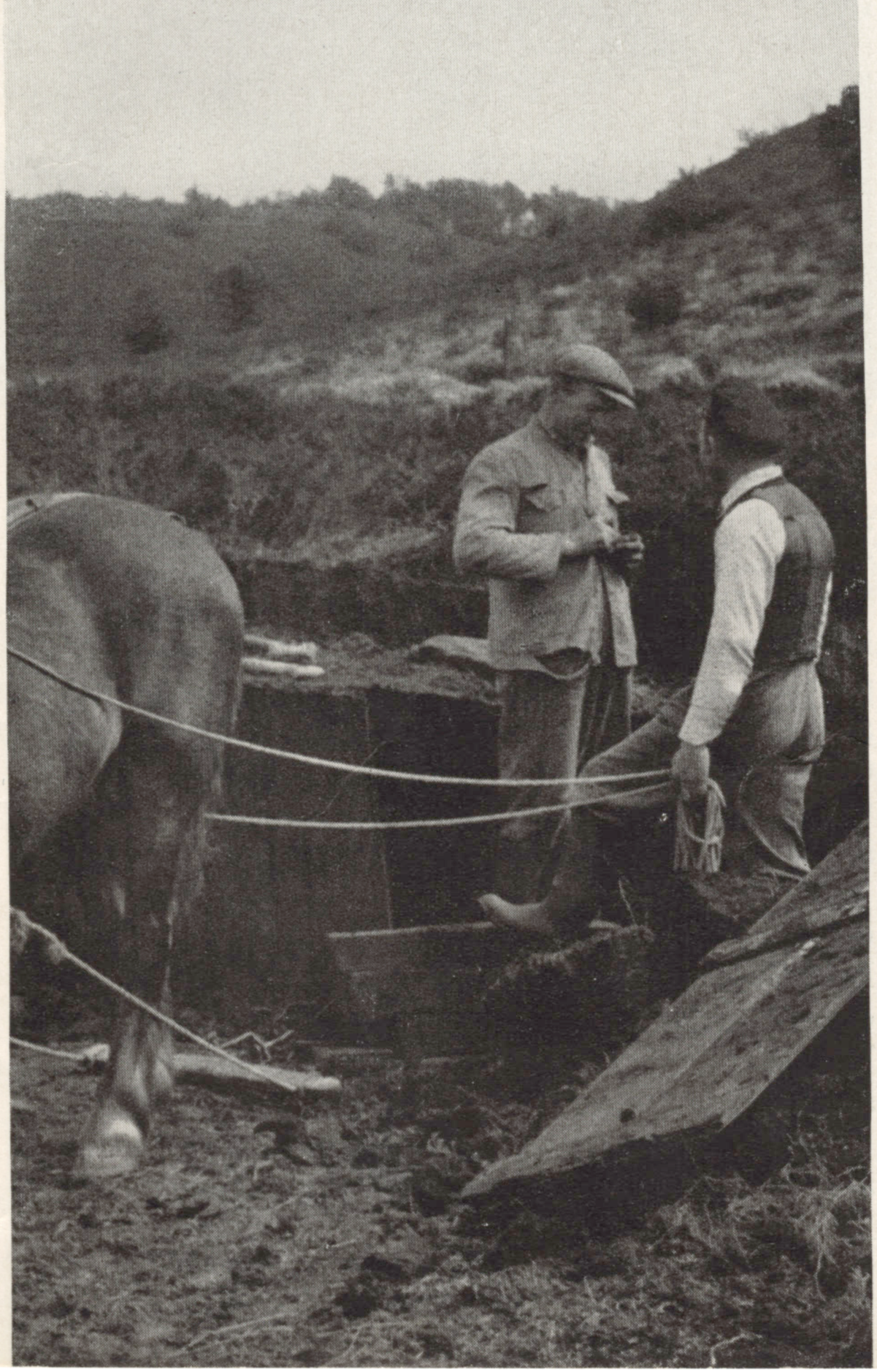
At the very beginning of the Christian Era, pagans of northern Europe offered human sacrifices to their gods and buried them in bogs, where tannic acid preserved the remains. These peat cutters found one such victim near Gravballe, Jutland (page 430).

←Dr. P. V. Glob, the author, surveys the Tollund Mose, where the Tollund man was discovered in 1950.

↓Tollund Man Wears His Death's Noose

The braided leather rope indicates he was hanged, perhaps to appease the goddess of fertility (page 425).

Lennart Larsen



Even royalty, apparently, was not proof against this precaution, for tradition relates that King Abel, who died in 1252, would not lie quietly in Schleswig Cathedral, where he was first buried, because his guilt for the murder of his brother troubled his rest. He was therefore taken out to a bog near Gottorp and there reburied with a stake through his body to keep him from haunting.

But the majority of those found in the peat bogs were doubtless human sacrifices to the gods, and this seemed the likeliest explanation of the fate of Tollund man.

As we sought further light on the mystery, we reviewed many fascinating peat-bog finds covering more than a century and a half.

One thing that these bodies had in common was a lack of grave furnishings, of ornaments or implements. They were scarcely ever found with other objects than their clothing. Their barrenness, in striking contrast to the rich furnishings often found with prehistoric burials, seemed to characterize the bodies in the peat as a special group.

Bodies Dated by Study of Pollen

This absence of handicraft articles long made the bodies difficult to date, but the peat geologists of our day can fix with considerable accuracy the age of anything found in the peat, even when no datable objects accompany them.

The method, known as pollen analysis, is based on a microscopic examination of the layers of peat. In them the pollen of trees and flowers, each type with its own shape and appearance, has been preserved in greater or less abundance, dependent upon the slow changes in northern Europe's climate. Now, too, we are experimenting in dating peat samples by the radiocarbon method developed in the United States.

One of the earliest discoveries we found on record was made in 1797 at Undelev in south Jutland. It was the body of a man, completely preserved even to hair and nails, dressed only in a leather cloak and shoes, lying under three hazel wands. The frightened finders reburied it with all speed.

The same fate befell the body of a woman found in 1843 near Korselitse on the island of Falster, but in this case the body was again exhumed shortly after, in accordance with the personal decision of Crown Prince Frederik. The Crown Prince, later King Frederik VII, even then was a keen antiquarian and personally carried out many excellent archeological excavations.

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In those earlier days interest was specially aroused by the discovery of the body of a woman in 1835 in Haraldskaer Mose near Vejle. She was clad in a leather jerkin and in woven cloth and was pinned down to the peat by means of forked sticks over knee and elbow as well as by two boughs arched over the body. Undoubtedly they were placed to prevent the dead woman from roaming as a specter.

The early identification of the body as that of Queen Gunhild, the gruesome consort of Erik Bloodaxe, was strongly—and correctly—opposed by the great Danish scientist J. J. A. Worsaae, one of the founders of scientific archeology.

Remarkable features of the men's bodies are the shortage of clothing, which often con-

Three Lions

Medieval St. Clemens Cathedral Is the Heart of Aarhus, Denmark's Second City

Founded in the 10th century, Aarhus ranks next to Copenhagen as a port and population center (116,000 inhabitants). Cultural attractions include Old Town, an open-air museum that preserves homes and furnishings from the Middle Ages, and Prehistoric Museum, which Dr. Glob directs. The Cathedral dates from 1204.

sists only of a leather cape or even less; the noose around the neck; and, frequently, a stick lying beside the body.

A discovery made in 1946 in Borremose in Himmerland has all three of these features. It had an important bearing upon our search for an explanation of the death of Tollund man.

Here, at a depth of 6½ feet in the peat, was found the well-preserved body of a man sitting cross-legged in a crumpled posture. The body was complete, even the skin and muscular structure being preserved.

Around the dead man's neck was a noose formed of three cords twisted together, the ends being knotted and cut short. Moreover, the skull had been crushed from the rear and the right leg broken a little above the knee. It would appear that these injuries were violently inflicted either before or during the laying of the body in the bog.

The man was without clothing, though a small scrap of cloth was found under the head and two crumpled pieces of leather under the feet. Over him lay a 55-inch birch stick.

In the same bog in 1948 peat cutters found the body of a woman, quite fat and thickset. The body lay face downward, and the head

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Weapons in a Peat Bog Tell of Wars Remembered Only in the Legends of *Beowulf*

During the fourth century Jutland suffered repeated attacks by invading Danes. In repelling them, native Jutes captured many weapons. These they destroyed and deposited in bogs as offerings to the gods of battle. When the Danes finally prevailed, the Jutes swarmed west with Angles and Saxons to invade England. These broken blades are topped by white firestone, or flint, the Dark Age match. A matchbox suggests scale.

had been crushed before the woman was deposited in the bog. She was clothed in a long woven skirt that extended up under the arms with a strap over the right shoulder.

It may be that these two persons lived their lives in the fortress which has been excavated since 1935 on a little island in the same peat bog. This fortress was established some two centuries before Christ. Surrounded by a rampart and a ditch and strengthened by palisades, it formed a place of refuge for the people of the surrounding countryside in time of danger.

By the first century B. C. a whole township had arisen on the island, with 28 farmsteads lying along a paved village street. A farmstead consisted of a long house with living quarters at one end, while the cattle were housed at the other—the usual type of dwelling in Jutland at the time to which the peat-bog bodies belonged.

The Honor of Being Hanged

The fact that both Tollund and Borremose man had been hanged might seem at first glance to indicate that they had been criminals. However, it is unlikely that hanging was considered by the ancient Nordic people to be a dishonorable form of punishment, for at a later period, and up to the introduction of Christianity, hanging was connected with offerings to the gods.

Hanged men belonged to Odin, one of the chief gods in the closing period of heathendom, the wise and cunning one-eyed god who demanded his offering of hanged men and would not be cheated.

Thus an old tale relates that Odin once demanded as payment for his aid the lives of King Vikar and some of his best warriors. Vikar's people were sorely grieved and unwilling, but Odin persuaded the king's own foster brother, Starkad, to attempt a stratagem. He placed a noose around the neck of the king and thrust at him with a reed, saying, "I now give you to Odin." In the same instant a bough to which the noose was attached sprang upward, strangling the king, while the reed changed into a spear, Odin's weapon, and pierced his body.

Here we have a description of hanging as an offering to the gods, but at the same time a remarkable account of a reed transformed into the spear of the god. This perhaps finds

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This Sword, Twisted Like Wire, Was Buried 1,500 Years Near Illerup, Denmark

Working from a knowledge of Denmark's climatic changes, archeologists date finds in peat bogs by pollen analysis. After the last Ice Age, arctic birch was replaced by pine, pine by oak, and oak by beech. Thus the age of a peat layer and the objects found in it may be determined by the dominant tree pollen. Here the author examines a sword excavated with a hoard of other weapons sufficient to have equipped an army.

a parallel in the sticks which in so many cases are laid upon the bodies of the hanged men from the bogs. The stick may well have symbolized the spear.

The absence of clothing on most of the men seemed, too, to have significance. It is unlikely that the Germanic tribes normally went about in such scanty garb, particularly at this time when the climate was cold and damp, the period in which trousers are first discovered in western Europe.

Festivals Appeased Fertility Gods

Remarkable in many respects was the case of the Borremose man. His fine narrow hands gave the impression of never having been used to heavy work. Significant, too, was the hanging rope, which was cut short and knotted at the ends so that the twisted strands resemble the metal collars, the torques, of the period. Such torques have been found, offered to the gods, in more than a hundred cases.

Such odd details in connection with bodies, particularly those from Tollund and Borremose, indicate that these were no ordinary criminals but sacrifices to the gods. But to which gods? And why were they sacrificed? We can never hope to obtain a definite reply, but an explanation can be offered.

The men from Tollund and Borremose lived at a time in the Iron Age when fertility cults were of great importance and when the goddess of fertility was worshiped as the principal deity. It is possible that the two men were sacrificed to her and deposited in the bogs in connection with the main fertility festivals in the spring which were designed to ensure the forthcoming harvest. Fertility festivals survive to this day in hamlets of Europe in the form of Shrovetide revels and "beating the bounds"—a ceremonial procession around the boundaries, when young people are ritually whipped.

Tacitus tells us of these Iron Age peoples and the Scandinavian fertility goddess:

"[These people] are distinguished by a common worship of Nerthus, or Mother Earth. They believe that she interests herself in human affairs and rides among their peoples. In an island of Ocean stands a sacred grove, and in the grove stands a car, draped with cloths . . . [in which rides the goddess] . . . .

"Then follow days of rejoicing and merry-

Tollund Man's Face Reflects Serenity, as if He Were Asleep

Time has been extraordinarily kind to the peat-bog burials. Egyptian mummies appear dried and shrunken; Peruvian mummies rarely retain facial expressions. Many ancient Roman busts lack the vitality shown by Tollund man. His face appears to be the finest preserved through the ages.

Two thousand years have passed since care put the wrinkles on Tollund man's brow and laughter drew the crow's-feet about his eyes; yet they can still be seen. Even the bristles of his beard and the pores of his skin are clearly discernible.

The pointed cap was fashioned from eight pieces of skin, with the fur inside, and held on by a chin strap.

↓Tollund man met death wearing only this peaked cap, hangman's rope, and leather belt. Freed from his peat tomb, he here lies ready for scientific study. Archeologists are preserving only the head, although the feet appear to have endured the ages almost as well.

Photographs by Lennart Larsen

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Three Lions

Danes Cut Peat from the Centuries-old Bog Where Tollund Man Came to Light

Here peat cutters found Tollund man buried seven feet deep. Thinking him the victim of a recent crime, they called in police. The author solved the mystery by identifying the body as that of a sacrifice to pre-Christian gods. Peat deposits in Denmark cover some 200 square miles. To reclaim land for cultivation, workers cut out the peat, drain the bog, and restore the topsoil. These freshly cut blocks await removal from the bank.

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P. V. Glob

Danes Get a Glimpse of Prehistory at a Public Showing of Gravballe Man

After this exhibition in Aarhus the body was withdrawn to be tanned for permanent preservation (page 430). Recently a 30-year-old Iron Age man and a teen-age girl turned up together in a bog near Schleswig, Germany. Her shaved head indicated they had been executed for violating marriage laws.

Opposite, bottom: G. Lange-Kornbak of the Prehistoric Museum arranges Gravballe man's hair. He found the throat cut by knife or noose, evidently to placate the Nordic gods.

making in every place that she honors with her advent and stay. No one goes to war, no one takes up arms; every object of iron is locked away. . . .

"After that the car, the cloths, and, believe it if you will, the goddess herself, are washed clean in a secluded lake. This service is performed by slaves who are immediately afterwards drowned in the lake."

This description undoubtedly gives a picture of the spring festivals, and it is significant that the ceremonies included human sacrifices in the lakes. Many of the bodies described above were deposited in lakes and sometimes held down with forked branches. Later these lakes became overgrown and turned into peat bogs.

Worship of this goddess commenced in Denmark in the middle of the first millennium B. C. We possess representations of her, from this very period, the end of the Bronze Age, in a number of small bronze statuettes which represent her in the same form as all fertility goddesses from all periods the world over—a naked woman with exaggerated femininity, the universal picture of the life-giving "Mother Earth." And all these small goddesses wear around their necks a twisted double torque. These torques resemble to a convincing degree the nooses that lie around the necks of the Tollund and Borremose men.

When one looks upon the face of Tollund man, wonderfully preserved for 2,000 years, one cannot see in his expression that of a criminal, tortured and hanged for some brutal crime. It is rather the face of a man who in supernal exaltation took the noose around his neck knowing that he went to his great goddess, to Nerthus and her fair handmaidens, and that by his death he ensured the life of his people for the coming year.

Autopsy Reveals Tollund Man's Food

An investigation of the stomach contents of the Tollund find throws an interesting sidelight on the question of the food eaten by prehistoric man. This autopsy established that the man had eaten no animal food in the period before his death, but only a porridge made of grain seeds and various plants.

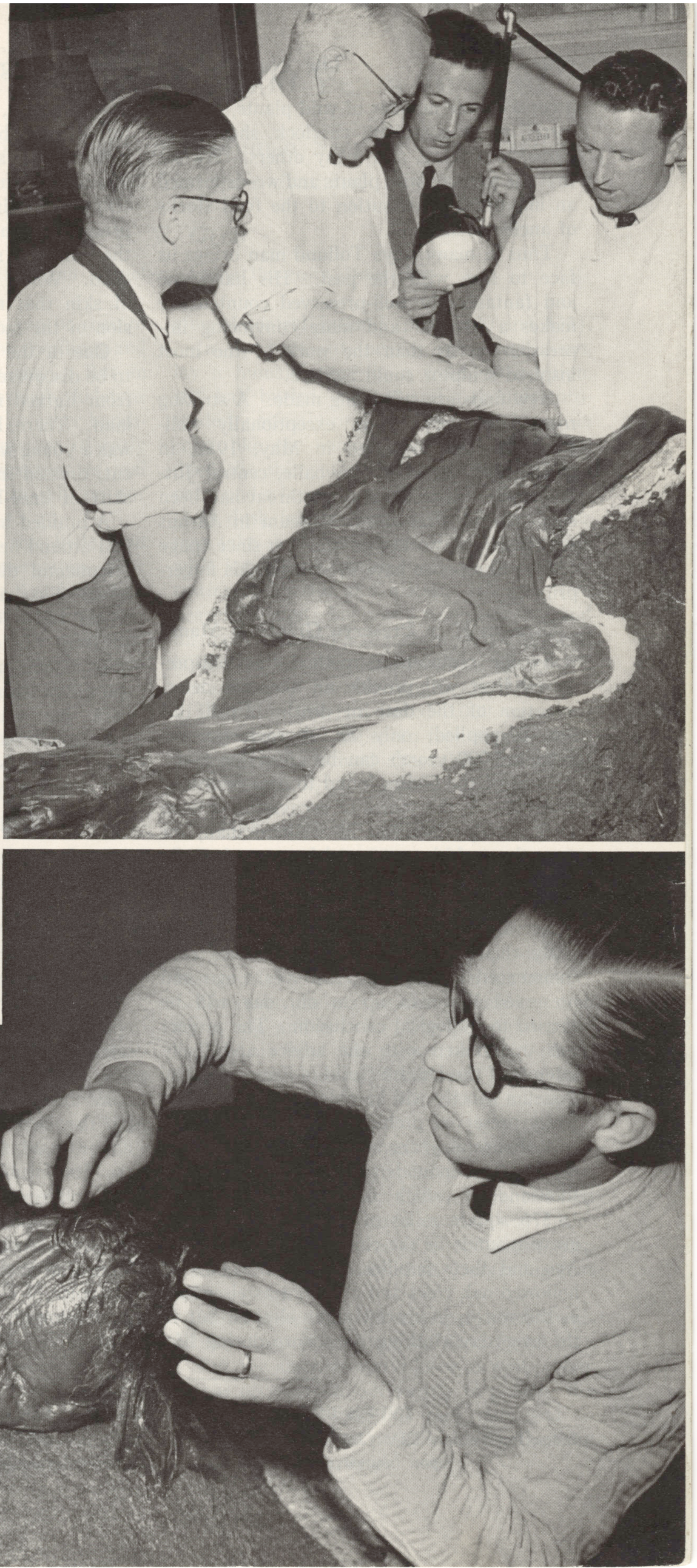
The porridge had consisted chiefly of barley, linseed, gold-of-pleasure, and persicaria —all cultivated plants. But it contained also

Gravballe Man Gets His First Medical Test in 20 Centuries

Stained by peat, this body was discovered in May, 1952. Since that time scientists have X-rayed him, probed his teeth, and examined his stomach contents. They hope to determine the precise date of his death by measuring radioactive carbon in the liver.

↓ Gravballe man's hand gave police possibly their oldest set of fingerprints. They proved as clear as any taken from a living person. Fingernails are still intact.

Chris. Christiansen (right), P. V. Glob (inset), and Lennart Larsen



a considerable number of wild plants, such as sorrel, white goosefoot, charlock, shepherd's-purse, heartsease, and many others. We see that the seeds of wild plants and weeds formed an important contribution to the food stocks of ancient man.

Thus in many ways Tollund man brings us face to face with the past. His handsome and fantastically well-preserved countenance makes a stronger and more convincing impression on us than the work of the most inspired sculptor could achieve.

New finds are still being made. A striking recent discovery of an exceptionally well-preserved man occurred in May, 1952, in Nebelgaard bog near Gravballe, central Jutland. He was naked and his throat had been cut. At our Prehistoric Museum in Aarhus scientists have worked on him ever since (page 429). The police have even taken his fingerprints!

Tanners Help Preserve Gravballe Man

By the radiocarbon method the well-preserved liver will provide an accurate determination of the date of death. Until this test is applied, only an approximate age (about 2,000 years) can be given the body.

Most of the bodies found to date have disintegrated in the course of excavation or soon after. Only the head of Tollund man, for example, could be preserved for posterity. In the case of the Gravballe man, the Prehistoric Museum is working on a way to achieve total conservation by various tanning techniques.

By this method, the natural process that commenced in the bog 2,000 years ago and preserved the man up to our day will be carried to its logical conclusion. The project was undertaken with the advice and lively interest of the Danish Guild of Tanners. The museum shortly will be able to exhibit a perfectly preserved prehistoric man (page 428).

A thousand years older than these bodies are the large mounds of the Bronze Age, fifty thousand of which lie scattered over the 16,576 square miles of Denmark. In these grave mounds lie the chieftains of the Bronze Age and their families, buried in coffins of hollowed oak trees and clad, not as elsewhere in the world, in special grave clothes, but in the everyday clothing they wore during life.

In Jutland, in cases where an iron-oxide formation, "hardpan," formed around the coffin soon after burial and hermetically sealed its contents, the hollowed oak trunk still survives in its original rounded form and preserves within its walls the woven clothing, the hair, the skin, even the eyebrows of the dead. When the lid is lifted, the thin layer of skin that remains still shows the expression of the face.

One of the most recent of the oak coffins to be discovered (in February, 1921) was that from Egtved near Kolding in southeast Jutland. There, lying at full length on her back, was a young woman with fair hair of page-boy cut, dressed in a short-sleeved jumper and a skirt of knee-length tassels.

A braided hair ribbon lay behind her head, and around her waist she wore a belt with an ornamental disk, decorated with spiral patterns. She had a comb of horn, and on her wrists were two beautiful bronze bracelets. In front of her face a little box, of linden raffia, contained a leather pricker and a spare hair ribbon. By her feet stood a birch-bark jug which had contained cranberry wine, made bitter with bog myrtle and sweetened with honey—a drink to refresh the dead girl on her way to the realms of the departed.

Child Buried with Woman

At her left side lay a bundle of cloth wrapped around the burnt bones of a child 7 or 8 years old—perhaps her own child who thus shared its mother's grave, or mayhap a little maidservant, accompanying her mistress on her last journey.

For a short while after the coffin was opened, the outlines of the face could still be seen, the face of a beautiful young woman with long eyelashes, who had lived and died more than 3,000 years ago. In the coffin, by the side of the woman, lay a yarrow flower, used from time immemorial to stop the flow of blood; it shows that the burial took place on a summer's day.

Half a score of similar discoveries, of men, women, and children, have been made in Jutland, and they give us some of the earliest examples of clothing in all the world as well as a glimpse of those ancient people themselves.

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Index for Volume CIV (July-December, 1953) of the NATIONAL GEOGRAPHIC MAGAZINE will be mailed upon request to members who bind their copies as works of reference.